



**Australian Government**  
**Department of Health**



# **Coronavirus Disease 2019 (COVID-19)**

## **CDNA National Guidelines for Public Health Units**

Version 7.3

09 September 2022

## Summary of revision history

Please note this table is a summary of key revisions to this guidance. For full revision history, refer to [Appendix D](#).

Version	Date	Revised by	Changes
Version 7.3	09 September 2022	CDNA	Revised: Isolation and restriction guidance
Version 7.2	22 July 2022	CDNA	Revised: Reinfection definition.
Version 7.1	08 July 2022	CDNA	Revised: Reinfection guidance.
Version 7.0	03 June 2022	CDNA	Full revision to present evidence-based recommendations for public health in the context of widespread community transmission across Australia. Appendices have been separated from guidelines main body. Appendix A. New: Current variants of concern, Appendix B. New: Additional guidance and resources, Appendix C. New: Glossary of terms, Appendix D. Moved: Full revision history.

## Disclaimer

These guidelines outline Australia's national minimum standard for surveillance, laboratory testing, case management and contact management for coronavirus disease 2019 (COVID-19). The intention of these guidelines is to reflect the current evidence base, with pragmatic guidance provided where evidence is still evolving. Jurisdictions may implement policies that exceed the national minimum standard based on local epidemiological context. CDNA will review and update these recommendations as new information becomes available on COVID-19 and the situation in Australia.

*Additional resources are available as [appendices](#) to support this guideline.*

Readers should not rely solely on the information contained within these guidelines. Guideline information is not intended to be a substitute for advice from other relevant sources including, but not limited to, the advice from a public health specialist or other health professional. Clinical judgement and discretion may be required in the interpretation and application of these guidelines.

The membership of the CDNA and the Australian Health Principal Protection Principal Committee (AHPPC), and the Australian Government as represented by the Department of Health (Health) do not warrant or represent that the information contained in these guidelines is accurate, current or complete. The CDNA, the AHPPC and Health do not accept any legal liability or responsibility for any loss, damages, costs or expenses incurred by the use of, or reliance on, or interpretation of, the information contained in these guidelines.

# Contents

1. Summary.....	5
Public health priority.....	5
Routine prevention activities.....	5
Case management.....	5
Contact management.....	5
2. The disease.....	5
Infectious agent.....	5
Disease occurrence and public health significance.....	5
Variants of Concern and Interest.....	6
Mode of transmission.....	6
Incubation period.....	6
Infectious period.....	6
Clinical presentation and outcome.....	7
3. Routine prevention activities.....	8
Vaccination.....	8
Recommendations to stay at home for people with acute respiratory symptoms.....	8
Universal prevention activities.....	9
4. Surveillance.....	10
Surveillance objectives.....	10
Reporting.....	10
COVID-19 surveillance guidance.....	11
5. Testing.....	11
Primary testing methods.....	11
6. Cases.....	12
Definitions.....	12
Case management.....	13
Isolation and restriction guidance.....	14
Re-exposure and reinfection following recovery from COVID-19.....	15
7. Contacts.....	16
Close contact definition.....	16
Management of contacts.....	16
8. List of appendices.....	18
Appendix A. Current variants of concern.....	18
Appendix B. Additional guidance and resources.....	18
Appendix C. Glossary of terms.....	18
Appendix D. Full revision history.....	18
9. References.....	19

# 1. Summary

## Public health priority

An automated electronic survey should be delivered to cases within 24 hours of notification to allow accurate reporting of cases and prioritisation for public health follow up.

Priority Classification	Public health response timeline
Urgent	Where there is concern for a new Variant of Concern, act as soon as possible – respond within 24 hours
High	Outbreaks in <a href="#">high-risk settings</a> , act as soon as possible – respond within one working day
Routine	Individual cases in most community settings do not require individual follow up

## Routine prevention activities

In the context of widespread community transmission, it is essential to implement [routine prevention activities](#) to minimise transmission of SARS-CoV-2.

## Case management

Confirmed cases must isolate until they meet the appropriate [release from isolation criteria](#).

## Contact management

Contact management for COVID-19 is dependent on epidemiological context and jurisdictional guidance. In the context of widespread community transmission, contact tracing and management should be prioritised for high-risk settings. For the general population, other public health measures can be utilised. Please see [management of contacts](#) for further guidance.

# 2. The disease

## Infectious agent

SARS-CoV-2 is the infectious agent that causes COVID-19. SARS-CoV-2 is a novel coronavirus that was first identified in humans in Wuhan, China, in December 2019. SARS-CoV-2 is the ninth coronavirus documented to affect humans, with all previous human coronaviruses having strong evidence of zoonotic origins (1). The [WHO-convened Global Study of Origins of SARS-CoV-2: China Part](#) suggests zoonotic origins of SARS-CoV-2 are likely, with bats the possible source. However, the route of initial transmission to humans remains unclear and further investigation is required (2).

## Disease occurrence and public health significance

The first cases of "pneumonia with unknown cause" detected in Wuhan, China, were notified to The World Health Organization (WHO) on 31 December 2019 (3). The cause was

identified as a novel coronavirus and WHO declared the outbreak a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 (4). WHO subsequently declared a pandemic on 12 March 2020 (5). Australia's first case of locally acquired COVID-19 was reported on 2 March 2020 (6). By 31 December 2021, two years since the first case was notified, the global excess mortality attributed to COVID-19 was estimated to be 18.2 million, well above the reported number of deaths of 5.94 million (7).

## Variants of Concern and Interest

Like other viruses, SARS-CoV-2 evolves over time, often with minimal impact on its properties. Some mutations, however, affect the properties in a way that pose an increased risk to public health. The WHO Technical Advisory Group on SARS-CoV-2 Virus Evolution (TAG-VE) monitors for such variants to determine if they meet the definition of a Variant of Interest (VOI) or a Variant of Concern (VOC).

The Communicable Diseases Genomics Network (CDGN) monitors VOCs in Australia. If the characteristics of emerging VOCs affect the properties of the virus in a way that significantly impacts Australia's public health, the guidance provided in this document may need to be adjusted.

A summary of current VOCs can be found in [Appendix A](#). This includes information on the following key characteristics:

- reproduction number and transmission dynamics
- incubation period
- infectious period
- clinical presentation and outcome.

## Mode of transmission

SARS-CoV-2 is primarily transmitted by exposure to infectious respiratory droplets and particles. Exposure occurs primarily through three routes (8):

- Inhalation of respiratory droplets and aerosolised particles.
- Deposits of respiratory droplets and particles on mucous membranes (mouth, nose, eyes).
- Touching of mucous membranes with hands directly contaminated with virus-containing respiratory fluids or indirectly by touching surfaces contaminated with virus-containing respiratory fluids.

## Incubation period

The median incubation period of ancestral strains of SARS-CoV-2 is 5 to 6 days, with a range of 1 to 14 days (9-11). Studies have shown shorter incubation periods for both Delta and Omicron VOCs than ancestral SARS-CoV-2 (12-15). Please see [Appendix A](#) for further information on the characteristics of current VOCs.

## Infectious period

Secondary transmission of SARS-CoV-2 can occur in pre-symptomatic and asymptomatic people and can continue as long as they shed whole live viruses (16-18). [Nucleic acid amplification testing \(NAAT\)](#) is not an effective measure of infectiousness as it can detect viral fragments that do not correlate with infectiousness. Studies have instead used viral cultures to estimate the duration of infectiousness for SARS-CoV-2. For the ancestral strains of SARS-

CoV-2, people with mild-to-moderate illness were highly unlikely to be infectious more than 10 days after symptom onset (19). The infectious period, however, can vary based on individual factors and the VOC (see [Appendix A](#) for current VOC). Individuals with severe disease, or who are significantly immunocompromised may have prolonged infectious periods (20).

**The infectious period for COVID-19 is generally taken from 48 hours prior to symptom onset (or positive test if asymptomatic) until release from isolation.** The [isolation period](#) is covered later in this document.

## Clinical presentation and outcome

COVID-19 usually presents with symptoms similar to other [acute respiratory infections \(ARI\)](#). Less commonly, SARS-CoV-2 can cause more severe disease including pneumonia, acute respiratory distress syndrome (ARDS), complications affecting other organ systems, and long-term sequelae (e.g. post COVID-19 condition).

In January 2022, two years after Australia's first COVID-19 case, Australia's reported case fatality ratio (CFR) was less than 0.2%, with approximately one third of Australia's deaths occurring in residential aged care facility residents (21). This is in comparison to a global CFR of approximately 1.2% (22).

For current information on COVID-19 case outcomes, please see [Coronavirus \(COVID-19\) case numbers and statistics | Australian Government Department of Health](#)

Evidence indicates that the severity of COVID-19 differs depending on the VOC, please see [Appendix A](#) for further information on current VOCs.

## Groups at high risk of severe disease

Increasing **age** is the most important risk factor for severe disease, with risk significantly increasing around 60-70 years of age.

**Unvaccinated** or partially vaccinated people are at greater risk of severe disease.

Risk of severe disease also increases with:

- the number, severity and nature of comorbidities
- immunosuppression
- disability and frailty
- Aboriginal and Torres Strait Islander status
- pregnancy.

Further information is available on the Department of Health's website: [Risk factors for more serious illness](#)

## High-risk settings and communities

In the context of widespread community transmission, high-risk settings are generally settings where there is both a:

- high proportion of people at high-risk of severe disease (for example, due to age or chronic medical conditions)
- higher risk of transmission due to close proximity and difficulty instituting control measures such as physical distancing or environmental controls.

In the context of widespread community transmission, jurisdictions routinely define the following settings as high-risk:

- Healthcare settings.
- Residential care facilities.
- Correctional and detention facilities.

Jurisdictions may define additional settings as high-risk based on their epidemiological context.

There are specific guidelines and risk matrices available for the management of COVID-19 in certain high-risk settings and communities. For a list of these guidelines, please see [Appendix B](#).

### 3. Routine prevention activities

#### Vaccination

The COVID-19 vaccination program commenced in Australia on 22 February 2021. The overarching goal of the program is to protect all people in Australia from the harm caused by SARS-CoV-2, through preventing serious illness and death, and where possible, disease transmission.

For current Australian Technical Advisory Group on Immunisation (ATAGI) recommendations and the latest evidence for COVID-19 vaccines, please see [ATAGI statement on defining up to date status for COVID-19 vaccination](#), [ATAGI updated recommendations for a winter dose of COVID-19 vaccine](#) and [Clinical guidance for COVID-19 vaccine providers](#).

For the latest information about Australia's COVID-19 vaccine rollout, please see [About Australia's COVID-19 vaccine rollout | Australian Government Department of Health](#).

#### Recommendations to stay at home for people with acute respiratory symptoms

People with symptoms consistent with an acute respiratory infection (ARI) should **stay at home when sick** to help prevent the spread of all respiratory viruses, including SARS-CoV-2 (23, 24).

Except for medical care or other urgent reasons, people with acute respiratory symptoms should stay at home until:

- at least 24 hours has elapsed since their last fever episode (without the use of fever-reducing medications)
- there is significant improvement in their acute respiratory symptoms

People with acute respiratory symptoms should also undergo [testing](#) for SARS-CoV-2 and possibly other respiratory pathogens (e.g. multiplex PCR). If they receive a positive SARS-CoV-2 result they need to follow [isolation and restriction guidance](#) for COVID-19.

#### Symptoms of acute respiratory infection

An acute respiratory infection (ARI) is defined as a recent onset of new or worsening acute respiratory symptoms: cough, breathing difficulty, sore throat, or runny nose/nasal congestion with or without other symptoms (see below).

Other symptoms may include:

- headache, muscle aches (myalgia), fatigue, nausea or vomiting and diarrhoea. Loss of smell and taste and loss of appetite can also occur with COVID-19, but may be less common with new variants of the disease
- fever ( $\geq 37.5^{\circ}\text{C}$ ) can occur, however is less common in elderly individuals
- in the elderly, other symptoms to consider are new onset or increase in confusion, change in baseline behaviour, falling, or exacerbation of underlying chronic illness (e.g. increasing shortness of breath in someone with congestive heart failure).

## Universal prevention activities

In the context of widespread community transmission, it is important for everyone to implement prevention activities to minimise transmission of SARS-CoV-2 and other respiratory infections. Evidence has demonstrated that public health measures are simple and effective in reducing SARS-CoV-2 transmission (25). The following measures should be applied at the individual, community and organisational level. Refer to jurisdictional guidelines for any additional requirements.

### Universal prevention activities to minimise SARS-CoV-2 transmission<sup>1</sup>

Prevention type	Universal Prevention Activities	When Recommended
Respiratory virus protective measures	An effective public health measure to reduce the spread of all respiratory viruses is for people with acute respiratory symptoms to follow <a href="#">recommendations to stay at home</a> (23, 24).	Always
Personal hygiene	Irrespective of symptoms individuals should follow sound personal hygiene practices to prevent infection and transmission (25), including: <ul style="list-style-type: none"> <li>• effective hand and respiratory hygiene</li> <li>• cleaning surfaces with viricidal products.</li> </ul>	Always
Physical distancing and gathering	Physical distancing is associated with a reduction in infections (26). This benefit is likely to increase with increased physical distance. Physical distancing measures may include: <ul style="list-style-type: none"> <li>• individuals to maintain a minimum distance from people of 1.5m</li> <li>• density restrictions in line with jurisdictional guidance.</li> </ul>	Wherever feasible

<sup>1</sup> Jurisdictions may mandate certain prevention activities based on their epidemiological context. Please refer to jurisdictional guidance.

Prevention type	Universal Prevention Activities	When Recommended
Environmental controls	Improving indoor air quality (optimised ventilation) can reduce- transmission (27, 28).	Wherever feasible
Personal Protective Measures	To add an additional layer of protection and lower the risk of infection or transmission individuals may consider using PPE (e.g. wearing a face mask (29, 30).	When people with symptoms need to leave home for urgent reasons or medical care  When indoors, or where physical distancing cannot be maintained outdoors

The above activities can be applied in line with the hierarchy of controls for preventing transmission of SARS-CoV-2. The hierarchy lists different risk mitigation and avoidance strategies including elimination, substitution, engineering controls, administrative controls and PPE. These are further outlined in the ICEG guidance [minimising the risk of infectious respiratory disease transmission in the context of COVID-19: the hierarchy of controls](#).

## 4. Surveillance

### Surveillance objectives

The COVID-19 surveillance objectives are aligned with the epidemiological context of the pandemic. With widespread community transmission, the key public health surveillance objectives are to:

- Record, monitor and report number of cases and geographical distribution.
- Prioritise and manage clusters and outbreaks in high-risk settings and communities.
- Monitor the burden of disease including health care system impacts and excess mortality.
- Monitor SARS-CoV-2 variants through whole genome sequencing - to detect VOCs, to inform vaccine development and efficacy, and to inform public health action.
- Monitor the effectiveness of prevention and control activities.

Jurisdictions may have additional surveillance objectives. Please refer to jurisdictional guidance.

### Reporting

With widespread community transmission of SARS-CoV-2, reporting priorities to central state/territory communicable diseases units should include:

- laboratory notification of positive SARS-CoV-2 NAAT results
- timely self-reporting of positive RAT results
- collection of case demographics and [risk factors for severe disease](#) through automated electronic surveys
- notification of clusters and outbreaks in high-risk settings and communities
- notification of COVID-19 cases in hospital and intensive care
- notification of COVID-19 related deaths.

Central state/territory communicable diseases units will provide data to the Australian Government Department of Health through the National Notifiable Diseases Surveillance System (NNDSS).

## COVID-19 surveillance guidance

### COVID-19 Surveillance Plan

The [Australian National Disease Surveillance Plan for COVID-19](#) (COVID-19 Surveillance Plan) describes Australia's national disease surveillance approach and outlines national surveillance goals, objectives and indicators.

### Testing Framework

The [Testing Framework for COVID-19 in Australia](#) (COVID-19 Testing Framework) provides guidance on the use and appropriateness of different testing methods based on the epidemiological context and priority testing groups. The COVID-19 Testing Framework also provides information on minimum considerations for workplace surveillance and technical guidance for current and emerging SARS-CoV-2 testing technology and methods, including whole genome sequencing and wastewater surveillance.

### Sampling strategy for SARS-CoV-2 genomic surveillance

The Communicable Diseases Genomics Network has developed the [Sampling strategy for SARS-CoV-2 genomic surveillance](#). This strategy outlines an approach for genomic surveillance from comprehensive sequencing to selective and targeted sequencing in the context of widespread community transmission. For additional guidance please see [Appendix B](#).

## 5. Testing

Public Health Units (PHUs) should follow jurisdictional testing guidance in line with the [COVID-19 Testing Framework](#).

### Primary testing methods

Details on the different testing methodologies for SARS-CoV-2 can be found at [Public Health Laboratory Network \(PHLN\) guidance on laboratory testing for SARS-CoV-2](#).

### Nucleic acid amplification testing

Nucleic acid amplification testing (NAAT), e.g. reverse transcription polymerase chain reaction (RT-PCR), is the gold standard for diagnosing acute symptomatic SARS-CoV-2 infection. As NAAT is laboratory-based, capacity may be overwhelmed with high levels of community transmission.

### Rapid antigen tests

Rapid antigen tests (RATs) are an alternative testing method that can be self-administered and provide fast results following the collection of a respiratory sample. RAT sensitivity is inherently lower than NAAT. Performance of different RATs can vary from test to test and depend on the VOC and the prevalence of infection in the community.

## Testing recommendations

**Anyone with COVID-19 compatible symptoms should continue to be tested for SARS-CoV-2.**

In the context of **widespread community transmission**:

- NAAT should be prioritised to ensure availability for:
  - People who need to be considered for treatment, including those:
    - [at high-risk of severe disease](#)
    - People who require hospital level care for their symptoms.
    - People in circumstances when additional control measures may be required:
      - for those at risk of exposing people at high-risk of severe disease including those who live or work in a high-risk setting
      - when there is concern regarding a new VOC.
- RATs may be used for other symptomatic people when NAAT is unavailable or there is need to relieve pressure on laboratory systems

A positive RAT result will not require a confirmatory NAAT and should be treated as a probable case. Anyone with a positive RAT should register this result as directed by the jurisdictional public health order/direction.

## 6. Cases

### Definitions

#### Reporting

Notify confirmed and probable cases. Refer to jurisdictional guidance for specific notification requirements.

#### Confirmed case

The confirmed case definition intends to capture newly diagnosed cases with laboratory definitive evidence to support a diagnosis.

A confirmed case requires [laboratory definitive evidence](#).

#### Laboratory definitive evidence:

- Detection of SARS-CoV-2 by nucleic amplification acid testing (NAAT); or
- Isolation of SARS-CoV-2 in cell culture, with confirmation using a NAAT; or
- SARS-CoV-2 IgG seroconversion or a four-fold or greater increase in SARS-CoV-2 antibodies of any immunoglobulin subclass including 'total' assays in acute and convalescent sera, in the absence of vaccination<sup>2</sup>.

#### Probable case

A probable case includes individuals who have [laboratory suggestive evidence](#)

---

<sup>2</sup> Antibody detection must be by a validated assay and included in an external quality assurance program. For all serological responses to be counted as laboratory evidence, a person should not have had a previous COVID-19 vaccination.

## Laboratory suggestive evidence:

- Detection of SARS-CoV-2 by rapid antigen testing (RAT)

## Reinfection

Reinfection is a subsequent confirmed or probable SARS-CoV-2 infection in a person with a recent known history of confirmed or probable COVID-19 that is determined to be separate to the previous infection based on epidemiological and/or laboratory findings.

Automated surveillance systems will not routinely count positive results within 28 days of an individual being released from isolation. See [re-exposure and reinfection following recovery from COVID-19](#) for further information. PHUs should follow jurisdictional advice.

## COVID-19 death

A COVID-19 death is defined for surveillance purposes as a death in a confirmed or probable COVID-19 case, unless there is a clear alternative cause of death that cannot be related to COVID-19 (e.g. trauma). There should be no period of complete recovery from COVID-19 between illness and death. Where a Coroner's report is available, these findings are to be observed.

## Case management

### Response times

Automated electronic survey should be delivered to cases within 24 hours of notification to allow accurate reporting of cases and prioritisation for public health follow up. Refer to jurisdictional guidelines for specific requirements.

Priority Classification	Public health response timeline
Urgent	Where there is concern for a new Variant of Concern, act as soon as possible – respond within 24 hours
High	Outbreaks in <a href="#">high-risk settings</a> , act as soon as possible – respond within one working day
Routine	Individual cases in most community settings do not require individual follow up

### Case investigation

An automated case management system should prioritise cases to allow targeted follow up where appropriate, particularly in high-risk settings.

Where automated case management systems are utilised, jurisdictions should ensure cases are provided with accessible and up to date information on how to manage their illness, access medical care, and understand their isolation requirements.

In addition to automated case management systems, jurisdictions may also consider a random or targeted selection of case interviews. This can help monitor for changes in disease epidemiology and assist in modelling projections of future COVID-19 case counts.

## Clinical management

The [National COVID-19 Clinical Evidence Taskforce](#) provides up to date clinical guidance for COVID-19 cases, including supportive therapy and oral treatments against severe disease. Public health responses are not routinely involved in individual clinical management. During the course of public health response, cases identified at high-risk of severe disease may be linked with appropriate clinical services.

## Isolation and restriction guidance

Isolation of COVID-19 cases is effective in reducing the spread of disease. The ideal duration of isolation should be determined based on the infectious period of the current VOC (see [Appendix A](#)). A minimum standard for release from isolation is outlined below.

### Minimum release from isolation criteria for COVID-19 cases

The following national minimum standard aims to balance disease control with the impact of prolonged isolation on individuals and communities. A small proportion of cases may still be infectious when released from isolation based on these criteria. **Cases should be educated about their potential to infect others despite meeting the minimum release from isolation criteria and provided with advice on additional strategies to help protect the community post-isolation (e.g. wearing a face mask when outside the home, avoiding high risk settings (see below)).**

**Cases can be released from isolation 5 days after their first positive test if they meet the following criteria:**

- **Substantial resolution of their acute respiratory symptoms**
- **No fever for 24 hours without the use of fever reducing medications**

**Cases who do not meet the above criteria after 5 days should remain isolated until these criteria are met.**

**Cases who are released from isolation within 7 days after their first positive test should be excluded from entering high-risk settings (such as residential aged care facilities, disability care facilities and hospitals) until at least 7 days following their positive test result and they are without symptoms. This applies to both staff and visitors.**

### Additional requirements for high-risk settings

[High-risk settings](#) should consider additional requirements due to the impact transmission can have in these settings. These may include:

- Patient/resident deisolation guidance and procedures
- Staff return to work guidance
- Guidance for visitors attending high-risk settings

Guidance should be tailored to the level of risk for each setting type or, where required, tailored to the individual (e.g. severely unwell hospital inpatients). Guidance may include

longer isolation periods, additional testing requirements, and individual assessment for significantly immunocompromised people<sup>3</sup>.

Please refer to jurisdictional guidance and additional resources in [Appendix B](#).

## Re-exposure and reinfection following recovery from COVID-19

Reinfection is possible following recent and/or prior recovery from COVID-19 (31-33). VOCs that demonstrate increased immune evasion have a greater likelihood of causing reinfections. The extent of protection provided by natural infection is dependent on the VOCs circulating in the community. Emerging evidence is being closely monitored and information on current VOCs is outlined in [Appendix A](#). The risk of reinfection is generally higher in people who are significantly immunocompromised (32, 34, 35). **Cases should be provided with information about their potential risk of reinfection, even despite recovery from a previous COVID-19 infection.**

### Re-exposure within 28 days of release from isolation

If a person meets the close contact definition within 28 days of release from isolation and is **asymptomatic**, they do not need to follow close contact requirements or undergo SARS-CoV-2 testing for screening purposes.

If they become **symptomatic**, they should follow the guidance below for [all people who develop new symptoms within 28 days of release from isolation](#).

### Guidance for all people who develop new symptoms within 28 days of release from isolation

To reduce the transmission of all respiratory viruses, including SARS-CoV-2, all people who develop new acute respiratory symptoms within 28 days of release from isolation should follow [recommendations to stay at home for people with acute respiratory symptoms](#). This is irrespective of whether they have a known re-exposure or not.

People who are at higher risk of severe COVID-19 disease who develop new symptoms within 28 days of release from isolation should contact their health care provider for advice; testing for COVID-19 and other respiratory viruses such as influenza and respiratory syncytial virus (RSV) may be indicated.

---

<sup>3</sup> Persons who are clinically assessed as being significantly immunocompromised may have a reduced ability to effectively clear SARS-CoV-2 and a prolonged infectious period. Significantly immunocompromised persons may include, but are not limited to, those who: have had an organ transplant and are on immune suppressive therapy; have had a haematopoietic stem cell transplant in the past 2 years; are on immune suppressive therapy for graft versus host disease; have had an active haematological malignancy; human immunodeficiency virus infection with CD4 T-lymphocyte count below 200 cells/per mm<sup>3</sup>; are receiving dialysis; or other conditions specifically noted by the treating medical practitioner. ATAGI presents their definition for significantly immunocompromised in their [recommendations on the use of a third primary dose of COVID-19 vaccine in individuals who are severely immunocompromised](#).

## Guidance for recovered cases more than 28 days of release from isolation

If more than 28 days have passed after release from isolation, recovered cases should be:

- tested for SARS-CoV-2 if they develop new COVID-19 symptoms and meet criteria for testing
- managed as a [case](#) if they test positive for SARS-CoV-2
- managed as a [close contact](#) if they meet the close contact definition.

## 7. Contacts

### Close contact definition

The risk of developing COVID-19 increases with the amount of time and intimacy of contact a person has with an infectious case. People are identified as close contacts when that risk warrants public health measures to minimise the risk of further transmission.

The people at highest risk of developing COVID-19 are household and household like contacts of cases. In Australia, the ancestral strains of SARS-CoV-2 had an estimated household secondary attack rate of 22.5% (36). Estimates of household secondary attack rates vary according to the epidemiological context and VOCs ([Appendix A](#)).

PHUs should refer to their jurisdictional guidance for specific close contact definitions. Close contacts generally include:

- household and household like contacts
- other close contacts: in specific circumstances or where a significant transmission event has occurred, as identified by a PHU in keeping with jurisdictional protocols.

### Management of contacts

While contact tracing and quarantine are effective measures against SARS-CoV-2 transmission, they are resource-intensive and disruptive to society (37). In the context of widespread community transmission, unless there is significant concern for a new VOC, close contact identification and management should be prioritised for high-risk settings. For the general population, other public health measures can be utilised as alternatives to quarantine. The duration of public health measures for close contacts should consider the [incubation period](#).

PHUs should follow jurisdictional guidelines regarding the management of close contacts.

### Options for management of close contacts

Public Health Measure	Possible management strategies for close contacts	When to apply
<b>Stay at home when symptomatic</b>	<b>All</b> close contacts should follow <a href="#">recommendations to stay at home for people with acute respiratory symptoms</a>	Always
<b>Testing</b>	<b>Symptomatic</b> close contacts should get tested for SARS-CoV-2.	Refer to jurisdictional requirements

Public Health Measure	Possible management strategies for close contacts	When to apply
	<p><b>Asymptomatic</b> close contacts may undergo testing based on jurisdictional guidelines.</p>	
<p><b>Quarantine</b></p>	<p><b>If required</b>, the duration of quarantine should balance the likelihood of developing COVID-19 with the health, social and economic impacts associated with quarantine.</p> <p>A quarantine period of 7 days reduces transmission, with the majority of cases developing COVID-19 within 7 days from exposure (38).</p>	<p>Refer to jurisdictional guidance for close contact quarantine requirements.</p>
<p><b>Enhanced prevention activities</b></p>	<p><b>All</b> people should follow <a href="#">universal prevention activities</a>.</p> <p>Close contacts should also follow <b>additional</b> measures including:</p> <ul style="list-style-type: none"> <li>• Wear a mask when in an indoor setting outside of the home.</li> <li>• Work or study from home, where feasible.</li> <li>• Avoid high-risk settings.</li> <li>• Avoid contact with people at risk of severe illness.</li> </ul>	<p>Only for <b>asymptomatic</b> people where quarantine is not required</p> <p>Refer to jurisdictional guidance for specific information (including duration of requirements)</p>
<p><b>Communication</b></p>	<p>PHUs should stay up to date with jurisdictional advice and existing communication materials on close contact management, including translated resources. These may be used to tailor educational materials to support specific groups and develop localised communication strategies.</p>	<p>Always</p>

## 8. List of appendices

These appendices are available through the [COVID-19 SoNG website](#).

- Appendix A. Current variants of concern**
- Appendix B. Additional guidance and resources**
- Appendix C. Glossary of terms**
- Appendix D. Full revision history**

## 9. References

1. Holmes EC, Goldstein SA, Rasmussen AL, Robertson DL, Crits-Christoph A, Wertheim JO, et al. The origins of SARS-CoV-2: A critical review. *Cell*. 2021;184(19):4848-56.
2. WHO. WHO-convened global study of origins of SARS-CoV-2: China Part. Geneva; 2021 30 March 2021.
3. WHO. WHO Director-General's opening remarks at the media briefing on COVID-19 - the 11th of March 2020. 11 March 2020.
4. WHO. Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV) Geneva: World Health Organization; 2020 [updated 30 January 2020. Available from: [https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov)).
5. WHO. WHO Director-General's opening remarks at the Mission briefing on COVID-19 - 12 March 2020 Geneva: World Health Organization; 2020 [updated 12 March 2020; cited 2020. Available from: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-mission-briefing-on-covid-19---12-march-2020>.
6. Health AGDo. Update on COVID-19 in Australia- Community Transmission 2020 [updated 03 March 2020. Available from: <https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/update-on-covid-19-in-australia-community-transmission>.
7. Wang H, Paulson KR, Pease SA, Watson S, Comfort H, Zheng P, et al. Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020–21. *The Lancet*. 2022;399(10334):1513-36.
8. Communicable Diseases Network. Scientific Brief: SARS-CoV-2 Transmission. National Center for Immunization and Respiratory Diseases 7 March 2021.
9. Quesada JA, López-Pineda A, Gil-Guillén VF, Arriero-Marín JM, Gutiérrez F, Carratala-Munuera C. Incubation period of COVID-19: A systematic review and meta-analysis. *Rev Clin Esp (Barc)*. 2021;221(2):109-17.
10. Elias C, Sekri A, Leblanc P, Cucherat M, Vanhems P. The incubation period of COVID-19: A meta-analysis. *International journal of infectious diseases : IJID : official publication of the International Society for Infectious Diseases*. 2021;104:708-10.
11. Daley C, Fydenkevez M, Ackerman-Morris S. A Systematic Review of the Incubation Period of SARS-CoV-2: The Effects of Age, Biological Sex, and Location on Incubation Period. *medRxiv*. 2020:2020.12.23.20248790.
12. Kang M, Xin H, Yuan J, Ali ST, Liang Z, Zhang J, et al. Transmission dynamics and epidemiological characteristics of Delta variant infections in China. *medRxiv*. 2021:2021.08.12.21261991.
13. Wang Y, Chen R, Hu F, Lan Y, Yang Z, Zhan C, et al. Transmission, viral kinetics and clinical characteristics of the emergent SARS-CoV-2 Delta VOC in Guangzhou, China. *EClinicalMedicine*. 2021;40.
14. Jansen L, Tegomoh B, Lange K, Showalter K, Figliomeni J, Abdalhamid B, et al. Investigation of a SARS-CoV-2 B.1.1.529 (Omicron) Variant Cluster — Nebraska. *MMWR Morb Mortal Wkly Rep*. 2021(70):1782–4.
15. Backer JA, Eggink D, Andeweg SP, Veldhuijzen IK, van Maarseveen N, Vermaas K, et al. Shorter serial intervals in SARS-CoV-2 cases with Omicron BA.1 variant compared with Delta variant, the Netherlands, 13 to 26 December 2021. *Euro Surveill*. 2022;27(6).

16. Buitrago-Garcia D, Egli-Gany D, Counotte MJ, Hossmann S, Imeri H, Ipekci AM, et al. Occurrence and transmission potential of asymptomatic and presymptomatic SARS-CoV-2 infections: A living systematic review and meta-analysis. *PLoS Med.* 2020;17(9):e1003346.
17. Syangtan G, Bista S, Dawadi P, Rayamajhee B, Shrestha LB, Tuladhar R, et al. Asymptomatic SARS-CoV-2 Carriers: A Systematic Review and Meta-Analysis. *Frontiers in public health.* 2020;8:587374.
18. Peeling RW, Heymann DL, Teo Y-Y, Garcia PJ. Diagnostics for COVID-19: moving from pandemic response to control. *The Lancet.* 2022;399(10326):757-68.
19. Walsh KA, Spillane S, Comber L, Cardwell K, Harrington P, Connell J, et al. The duration of infectiousness of individuals infected with SARS-CoV-2. *J Infect.* 2020;81(6):847-56.
20. van Kampen JJA, van de Vijver DAMC, Fraaij PLA, Haagmans BL, Lamers MM, Okba N, et al. Duration and key determinants of infectious virus shedding in hospitalized patients with coronavirus disease-2019 (COVID-19). *Nature Communications.* 2021;12(1):267.
21. Australian Government. Coronavirus (COVID-19) case numbers and statistics [Available from: <https://www.health.gov.au/health-alerts/covid-19/case-numbers-and-statistics>].
22. WHO. WHO Coronavirus (COVID-19) Dashboard [Available from: <https://covid19.who.int/>].
23. R Moss JW, D Brown, FM Shearer, AJ Black, K glass, AC Cheng, JM McCaw, J McVernon. Modelling the impact of COVID-19 in Australia to inform transmission reducing measures and health system preparedness. [https://www.doherty.edu.au/uploads/content\\_doc/McVernon\\_Modelling\\_COVID-19\\_2.pdf](https://www.doherty.edu.au/uploads/content_doc/McVernon_Modelling_COVID-19_2.pdf); April 2020.
24. Kumar S, Grefenstette JJ, Galloway D, Albert SM, Burke DS. Policies to reduce influenza in the workplace: impact assessments using an agent-based model. *Am J Public Health.* 2013;103(8):1406-11.
25. Talic S, Shah S, Wild H, Gasevic D, Maharaj A, Ademi Z, et al. Effectiveness of public health measures in reducing the incidence of covid-19, SARS-CoV-2 transmission, and covid-19 mortality: systematic review and meta-analysis. *BMJ.* 2021;375:e068302.
26. Chu DK, Akl EA, Duda S, Solo K, Yaacoub S, Schünemann HJ. Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *Lancet.* 2020;395(10242):1973-87.
27. Gettings J, Czarnik M, Morris E, Haller E, Thompson-Paul AM, Rasberry C, et al. Mask Use and Ventilation Improvements to Reduce COVID-19 Incidence in Elementary Schools - Georgia, November 16-December 11, 2020. *MMWR Morb Mortal Wkly Rep.* 2021;70(21):779-84.
28. Stabile L, Pacitto A, Mikszewski A, Morawska L, Buonanno G. Ventilation procedures to minimize the airborne transmission of viruses in classrooms. *Build Environ.* 2021;202:108042.
29. Li Y, Liang M, Gao L, Ayaz Ahmed M, Uy JP, Cheng C, et al. Face masks to prevent transmission of COVID-19: A systematic review and meta-analysis. *Am J Infect Control.* 2021;49(7):900-6.
30. Jain KLAJMPJFMNFJLDJOJPWJALS. Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection — California, February–December 2021. *MMWR Morb Mortal Wkly Rep* 2022. 2022;71:212–6.

31. Chemaitelly H, Ayoub HH, Coyle P, Tang P, Yassine HM, Al-Khatib HA, et al. Protection of Omicron sub-lineage infection against reinfection with another Omicron sub-lineage. medRxiv. 2022:2022.02.24.22271440.
32. Slezak J, Bruxvoort K, Fischer H, Broder B, Ackerson B, Tartof S. Rate and severity of suspected SARS-Cov-2 reinfection in a cohort of PCR-positive COVID-19 patients. Clinical microbiology and infection : the official publication of the European Society of Clinical Microbiology and Infectious Diseases. 2021;27(12):1860.e7-.e10.
33. Stegger M, Edslev SM, Sieber RN, Căcilia Ingham A, Ng KL, Tang M-HE, et al. Occurrence and significance of Omicron BA.1 infection followed by BA.2 reinfection. medRxiv. 2022:2022.02.19.22271112.
34. Abolghasemi S, Zolfaghari F, Naeimipoor M, Azhdari Tehrani H, Hakamifard A. COVID-19 reinfection or reactivation in a renal transplant patient. Clinical case reports. 2021;9(8):e04672.
35. Ünsal O, Yazıcı O, Özdemir N, Çubukçu E, Ocak B, Üner A, et al. Clinical and laboratory outcomes of the solid cancer patients reinfected with SARS-CoV-2. Future Oncol. 2022;18(5):533-41.
36. Sordo AA, Dunn A, Gardiner ER, Reinten TA, Tsang TS, Deng L, et al. Household transmission of COVID-19 in 2020 in New South Wales, Australia. Communicable diseases intelligence (2018). 2022;46.
37. WHO. Strategic preparedness, readiness and response plan to end the global COVID-19 emergency in 2022. 30 March 2022.
38. Quilty BJ, Clifford S, Hellewell J, Russell TW, Kucharski AJ, Flasche S, et al. Quarantine and testing strategies in contact tracing for SARS-CoV-2: a modelling study. The Lancet Public health. 2021;6(3):e175-e83.